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- (63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:  
US 60/385,013 (CIP)  
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- (75) Inventor/Applicant (*for US only*): GUIRAKHOO, Farshad [US/US]; 39 Chestnut Street, Melrose, MA 02176 (US).
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WO 2003/101397 A3

(54) Title: TETRAVALENT DENGUE VACCINES

(57) Abstract: The invention provides tetravalent Dengue vaccines, and methods of using these vaccines to prevent or to treat Dengue infection.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/17359

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61K 39/193

US CL : 424/218.1

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 424/218.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GUIRAKHOO, et al., Recombinant chimeric yellow fever-dengue type 2 virus is immunogenic and protective in non-human primates. Journal of virology. June 2000, vol 74, no. 12, pages 5477-5485, especially last paragraph on page 5485.	1 AND 11
X	GUIRAKHOO et al, Construction, safety, and immunogenicity in nonhuman primates of a chimeric yellow fever-dengue virus tetravalent vaccine. August 2001, vol 75, no. 06, pages 7290-7304.	1-18
X	PERVIKOV, Development of dengue vaccine. World health organization, dengue bulletin 24, see chimeric vaccine section.	1 AND 11
X	Halstead et al. Rapid review: the future of dengue vaccines. The lancet. 19 October 2002, volume 360, pages 1243-1245. See page 1244.	1 AND 11
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P		1 AND 11
X	BONALDO et al. The yellow fever 17d vaccine virus as a vector for the expression of foreign proteins: development of new live flavivirus vaccines. Mem inst osvaldo cruz, rio de janeiro. 2000, vol 95, suppl. 1, pages 215-223, especially pages 218 and 219	1 AND 11

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.**\* Special categories of cited documents:**

"A" document defining the general state of the art which is not considered to be of particular relevance

"B" earlier application or patent published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;"

document member of the same patent family

Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

PCT/US03/17359

**Continuation of B. FIELDS SEARCHED Item 3:**

EAST, Medline, Scirus, and Google

**SEARCH TERMS: TETRA VACCINE YF YELLOW FEVER CHIMERIC CHIMERA DENGUE**